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# Scientific and Technical Information Center SEARCH REQUEST FORM Requester's Full Name: Courtney A. Brown Examiner # \_ Art Unit: 1617 Phone Number: \$ 03394 Serial N Serial Number: 10590309 Art Unit: 1617 (Mailbox #): Rn 4C10 Results Format Preferred (circle): PAPER TDISK Location (Bidg/Room#): 4859 To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following: Title of Invention: Tasecticide Compositions Inventors (please provide fish names): Ohkawara, Yuichi Barliest Priority Date: 2/04/2004 Search Topies Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, hepwords, synonyms, acronyms, and registry numbers, and combine with the concept or mility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, unthers, etc., if known. \*For Sequence Searches Only\* Please include all pertinent information (parent, child, distribud, or issued parent numbers) along with the appropriate serial number. Please Search Compound of formula [10] as defined in Claim 1. (See althorid)

Right Sech approl

Robert Jrvs Supervisory Patent Examiner Technology Center 1600

## INVENTOR SEARCH

=> fil capl; d que nos 118

FILE 'CAPLUS' ENTERED AT 14:47:37 ON 14 SEP 2011

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FILE COVERS 1907 - 14 Sep 2011 VOL 155 ISS 12
FILE LAST UPDATED: 13 Sep 2011 (20110913/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2011
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2011

CAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2011.

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## http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.  $\begin{tabular}{ll} \hline \end{tabular}$ 

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

L2	960	SEA	FILE=REGISTRY SPE=ON	ABB=ON	153719-23-4 OR	153719-23-4/C
		RN				
L6		STR				
L11	408	SEA	FILE=REGISTRY SSS F	UL L6		
L12	2	SEA	FILE=REGISTRY SPE=O	N ABB=O	N L2 AND L11	
L13	40	SEA	FILE=CAPLUS SPE=ON	ABB=ON	L12	
L14	2023	SEA	FILE=CAPLUS SPE=ON	ABB=ON	L2	
L15	798	SEA	FILE=CAPLUS SPE=ON	ABB=ON	L11	
L16	262	SEA	FILE=CAPLUS SPE=ON	ABB=ON	L14 AND L15	
L17	75	SEA	FILE=CAPLUS SPE=ON	ABB=ON	OHKAWARA Y?/AU	
L18	1	SEA	FILE=CAPLUS SPE=ON	ABB=ON	L17 AND (L13 OR	L15 OR L16)

## => d ibib abs hitstr 118

L18 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2005:961973 CAPLUS Full-text

DOCUMENT NUMBER: 143:224156

TITLE: Synergistic insecticide compositions

INVENTOR(S): Ohkawara, Yuichi
PATENT ASSIGNEE(S): Sumitomo Chemical Takeda Agro Company, Limited, Japan

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	rent 1	NO.			KIN		DATE		APPLICATION NO.							DATE				
WO	WO 2005079575 W: AE, AG, AL, A														20050221					
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		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	D2	Ζ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,		
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	ΙS	3,	KΕ,	KG,	KP,	KR,	KΖ	LC,	LK,		
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MF	ζ,	MN,	MW,	MX,	MΖ,	NA.	NI,	NO,		
		NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC	Ξ,	SD,	SE,	SG,	SK,	SL	SY,	ТJ,		
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 143:224156

GI

AB An insecticide composition which contains one or more compds. selected from (I) where R1, R2, R3 and R4 are same or different H, C1-6 alkyl, C1-6 haloalkyl, halo; R5 = H, C1-6 alkyl; X = CH or N; n = 0 to 3; and salts thereof and further contains a neonicotinoid compound (II) where Y = CH2, S, or NR6 (R6 = H or C1-6 alkyl); Z = N or CH; W = cyano or nitro; A and B are the same, or different H or C1-6 alkyl, or heterocyclic substituents; and Het = pyridyl, thiazolyl, or tetrahydro-furyl complex rings. The composition produces a synergistic effect.

IT 153719-23-4, Thiamethoxam

RL: AGR (Agricultural use); BCP (Biochemical process); BIOL (Biological study); PROC (Process); USES (Uses)

(synergistic insecticide compns. with benzoic acid amide derivs. and)

RN 153719-23-4 CAPLUS

CN 4H-1,3,5-0xadiazin-4-imine, 3-[(2-chloro-5-thiazolyl)methyl]tetrahydro-5-methyl-N-nitro- (CA INDEX NAME)

$$\begin{array}{c|c}
Me & & \\
N & NO2 \\
\hline
N & CH_2 & & \\
\end{array}$$

IT 362639-62-1 500005-94-7 500006-21-3 500008-00-4 500008-44-6 500008-60-6

RL: AGR (Agricultural use); BCP (Biochemical process); BIOL (Biological study); PROC (Process); USES (Uses)

(synergistic insecticide compns. with neonicotinoids containing)

RN 362639-62-1 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500005-94-7 CAPLUS
CN 1H-Pyrazole-5-carboxamide,
3-bromo-1-(3-chloro-2-pyridinyl)-N-[2-methyl-6[[(1-methylethyl)amino]carbonyl]phenyl]- (CA INDEX NAME)

RN 500008-00-4 CAPLUS
CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-44-6 CAPLUS
CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-60-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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STRUCTURE FILE UPDATES: 13 SEP 2011 HIGHEST RN 1332075-54-3 DICTIONARY FILE UPDATES: 13 SEP 2011 HIGHEST RN 1332075-54-3

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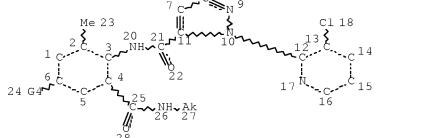
STR

TSCA INFORMATION NOW CURRENT THROUGH June 24, 2011.

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http://www.cas.org/support/stngen/stndoc/properties.html



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VAR G4=H/CL
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 27
DEFAULT MLEVEL IS ATOM
MLEVEL IS CLASS AT 27 29
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS X3 C AT 27

L6

408 ANSWERS

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE

L11 408 SEA FILE=REGISTRY SSS FUL L6

100.0% PROCESSED 93548 ITERATIONS

SEARCH TIME: 00.00.03

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L6	STR	
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L12	2 SEA FILE=REGISTRY SPE=ON ABB=ON L2 A	ND L11

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FILE COVERS 1907 - 14 Sep 2011 VOL 155 ISS 12

FILE LAST UPDATED: 13 Sep 2011 (20110913/ED)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2011

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2011

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960 SEA FILE=REGISTRY SPE=ON ABB=ON 153719-23-4 OR 153719-23-4/C
L2
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L6
               STR
L11
           408 SEA FILE=REGISTRY SSS FUL L6
L12
            2 SEA FILE=REGISTRY SPE=ON ABB=ON L2 AND L11
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L13
=> s 113 not 118
L23 40 L13 NOT L18 L18=INVENTOR SEARCH
=> s 123 and patent/dt
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L24
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## STRUCTURE SEARCH PART 2

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TSCA INFORMATION NOW CURRENT THROUGH June 24, 2011.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

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http://www.cas.org/support/stngen/stndoc/properties.html

VAR G1=29/CF3
VAR G4=H/CL
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 27
DEFAULT MLEVEL IS ATOM
MLEVEL IS CLASS AT 27 29
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS X3 C AT 27

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE

L11 408 SEA FILE=REGISTRY SSS FUL L6

100.0% PROCESSED 93548 ITERATIONS

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408 ANSWERS

SEARCH TIME: 00.00.03

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'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

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L6 STR

L11 408 SEA FILE=REGISTRY SSS FUL L6

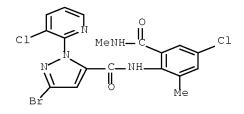
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=> d que nos 121

L6 STR

408 SEA FILE=REGISTRY SSS FUL L6 L11 798 SEA FILE=CAPLUS SPE=ON ABB=ON L11 L15 313 SEA FILE=CAPLUS SPE=ON ABB=ON L15 AND PATENT/DT L19 L21 O SEA FILE=CAPLUS SPE=ON ABB=ON (L15 NOT L19) AND PY<2005 => d que nos 122 STR L11 408 SEA FILE=REGISTRY SSS FUL L6 L15 798 SEA FILE=CAPLUS SPE=ON ABB=ON L11 L19 313 SEA FILE=CAPLUS SPE=ON ABB=ON L15 AND PATENT/DT L22 16 SEA FILE=CAPLUS SPE=ON ABB=ON L19 AND (PD<20040224 OR AD<20040224 OR PRD<20040224) => s 120,122L28 32 (L20 OR L22) => d ibib abs hitstr 128 1-32; fil hom L28 ANSWER 1 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2011:606234 CAPLUS Full-text DOCUMENT NUMBER: 155:274109 TITLE: Recent advance on synthesis of chlorantraniliprole and its intermediates AUTHOR(S): Tan, Hai-jun; Gu, Lin-ling CORPORATE SOURCE: Jiangsu Rotam Chemistry Co., Ltd., Jiangsu Kunshan, 215300, Peop. Rep. China Xiandai Nongyao (2011), 10(1), 4-7 SOURCE: CODEN: XNIOBL; ISSN: 1671-5284 PUBLISHER: Xiandai Nongyao Bianjibu DOCUMENT TYPE: Journal; General Review LANGUAGE: Chinese AΒ A review with 23 refs.. A brief review of recent advance on the synthesis of a novel pesticide, chlorantraniliprole, and its intermediates is introduced. The relevant synthetic routes are also compared. 500008-45-79, Chlorantraniliprole ΙT RL: AGR (Agricultural use); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses) (recent advance on synthesis of chlorantraniliprole and its intermediates) 500008-45-7 CAPLUS RN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-CN [(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)



L28 ANSWER 2 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2011:220390 CAPLUS Full-text

DOCUMENT NUMBER: 154:581474

TITLE: Application and promotion prospects of

chlorantraniliprole

AUTHOR(S): Wu, Yi; Chen, Yuanjun; Wang, Min

CORPORATE SOURCE: Sichuan Daxian Plant Protection Station, Daxian,

Sichuan Province, 635000, Peop. Rep. China

SOURCE: Nongyao Kexue Yu Guanli (2010), 31(11), 53-55

CODEN: NKYGEH; ISSN: 1002-5480

PUBLISHER: Nongyebu Nongyao Jiandingso DOCUMENT TYPE: Journal; General Review

LANGUAGE: Chinese

AB A review. Application and promotion prospects of chlorantraniliprole in Chilo suppressalis were introduced.

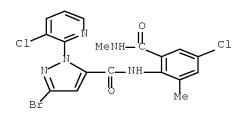
IT 500008-45-7, Chlorantraniliprole

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (application and promotion prospects of chlorantraniliprole)

RN 500008-45-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-

[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)



L28 ANSWER 3 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2010:491866 CAPLUS Full-text

DOCUMENT NUMBER: 153:107923

TITLE: The development and application of chlorantraniliprole

AUTHOR(S): Yan, Xiaomin; Ning, Binke; Wang, Lieping; Zhang,

Yuanyuan; Zhu, Limin

CORPORATE SOURCE: Xian Modern Chemistry Research Institute, Xian,

710065, Peop. Rep. China

SOURCE: Shijie Nongyao (2009), 31(6), 20-23

CODEN: SNHOBT; ISSN: 1009-6485

PUBLISHER: Shijie Nongyao Bianjibu DOCUMENT TYPE: Journal; General Review

LANGUAGE: Chinese

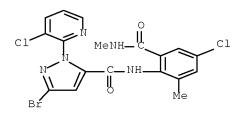
AB A review on chlorantraniliprole, which was a new broad spectrum and more effective, less toxic and environmently safe insecticide, with a novel chemical of the anthranilic diamides, summarized its phys. and chemical properties, synthetic techniques, effective activity characteristics, mode of action and insect species controlled, as well as its research and development in application.

IT 500008-45-7, Chlorantraniliprole

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (the development and application of chlorantraniliprole)

RN 500008-45-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)



L28 ANSWER 4 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2010:186686 CAPLUS Full-text

DOCUMENT NUMBER: 153:425015

TITLE: Summary of chlorantraniliprole-a new type of

ryanodines receptor insecticide

AUTHOR(S): Liu, Yi; Wang, Guo-sheng

CORPORATE SOURCE: College of Chemical Engineering, Shenyang Institute of

Chemical Technology, Shenyang, 110142, Peop. Rep.

China

SOURCE: Huaxue Gongchengshi (2009), 23(12), 44-47

CODEN: HGUOAP; ISSN: 1002-1124

PUBLISHER: Huaxue Gongchengshi Bianjibu DOCUMENT TYPE: Journal; General Review

LANGUAGE: Chinese

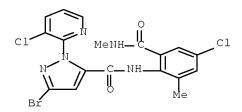
AB A review with 13 refs. on summary of chlorantraniliprole-a new type of ryanodines receptor insecticide with emphasis on the physicochem. properties, action mechanism, synthesis, and development of

properties, action mechanism, synthesis, and development of chlorantraniliprole.

IT 500008-45-7, Chlorantraniliprole

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (physicochem. properties, insecticidal mechanism and synthesis of chlorantraniliprole)

RN 500008-45-7 CAPLUS



L28 ANSWER 5 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2009:1241475 CAPLUS Full-text

DOCUMENT NUMBER: 152:405574

TITLE: Novel varieties of pesticide and medicament containing

pyridine ring
Zhang, Yi-bin

CORPORATE SOURCE: Shanghai Pesticide Research Institute, Shanghai,

200032, Peop. Rep. China

SOURCE: Jingxi Yu Zhuanyong Huaxuepin (2009), 17(17), 25-27,

30

CODEN: JYZHA7; ISSN: 1008-1100

PUBLISHER: Jingxi Yu Zhuanyong Huaxuepin Bianjibu

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Chinese

AUTHOR(S):

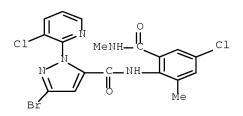
AB A review. Pyridine derivs. are important reactants and intermediates, which were applied in the fields of pesticide manufacture and pharmaceutical manufacture Novel pyridine ring-bearing pesticides and pharmaceuticals developed in recent years were introduced in brief. Novel pesticides and insecticide include chlorantraniliprole, flonicamid, fungicide such as fluopyram, pyribencarb, herbicide pyroxsulam, aminopyralid and so on. And novel pharmaceutical agents include atazanavir sulfate, azelnidipine and rupatadine fumarate.

IT 500008-45-79, 3-Bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5carboxamide (chlorantraniliprole)

RL: AGR (Agricultural use); IMF (Industrial manufacture); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (advances in development of methods for synthesis of pyridine ring-bearing pesticides, herbicides, fungicides, insecticides and pharmaceutical drugs)

RN 500008-45-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)



L28 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2009:705069 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 151:191059

TITLE: New and selective ryanodine receptor activators for

insect control

AUTHOR(S): Lahm, George P.; Cordova, Daniel; Barry, James D.

CORPORATE SOURCE: Stine-Haskell Research Center, DuPont Crop Protection,

Newark, DE, 19711, USA

SOURCE: Bioorganic & Medicinal Chemistry (2009), 17(12),

4127-4133

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. Diamide insecticides have emerged as one of the most promising new classes of insecticide chemical owing to their excellent insecticidal efficacy and high margins of mammalian safety. Chlorantraniliprole and flubendiamide, the first two insecticides from this class, demonstrate exceptional activity across a broad range of pests in the order Lepidoptera. This chemical has been confirmed to control insects via activation of ryanodine receptors which leads to uncontrolled calcium release in muscle. The high levels of mammalian safety are attributed to a strong selectivity for insect over mammalian receptors.

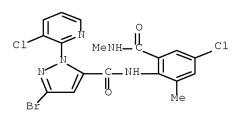
IT 500008-45-7P, Chlorantraniliprole

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(Altacor, Coragen, Rynaxypyr; preparation, use, and mode of action and selectivity of diamide insecticides)

RN 500008-45-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS

RECORD (14 CITINGS)

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 7 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2009:67142 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 151:213678

TITLE: Research advances on one of new anthranilic diamides,

chlorantraniliprole

AUTHOR(S): Ou, Xiaoming; Tang, Dexiu; Lin, Xuemei CORPORATE SOURCE: National Engineering Research Center for

Agrochemicals, Hunan Research Institute of Chemical

Industry, Changsha, 410007, Peop. Rep. China

SOURCE: Shijie Nongyao (2007), 29(5), 6-10

CODEN: SNHOBT; ISSN: 1009-6485

PUBLISHER: Shijie Nongyao Bianjibu

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Chinese

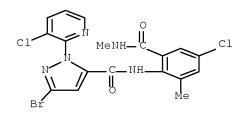
AB A review. Anthranilic diamides were a new kind of insecticides recently discovered, which had the characteristics of high effective, low toxic and unique action mechanism. The discovery of anthranilic diamides and the synthesis, biol., toxicol. and working mechanism of chlorantraniliprole, the first com. used potential ryanodine receptor activator of anthranilic diamides, were reviewed.

IT 500008-45-7, Chlorantraniliprole

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (research advances on one of new anthranilic diamides, chlorantraniliprole)

RN 500008-45-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L28 ANSWER 8 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2009:46528 CAPLUS Full-text

DOCUMENT NUMBER: 151:330295

TITLE: Rynaxypyr, a new insecticide and its research &

development in application

AUTHOR(S): Xu, Shang-cheng; Yu, You-fen; Wang, Xiao-jun; Wan, Qin CORPORATE SOURCE: Jiangsu Pesticide Research Institute, Nanjing, 210019,

Peop. Rep. China

SOURCE: Xiandai Nongyao (2008), 7(5), 8-11

CODEN: XNIOBL; ISSN: 1671-5284

PUBLISHER: Xiandai Nongyao Bianjibu DOCUMENT TYPE: Journal; General Review

LANGUAGE: Chinese

AB A review on Rynaxypyr, a new broad spectrum insecticide with a novel chemical of anthranilic diamides and a unique mode of action acting on insect ryanodine receptors, summarizes its phys. & chemical properties, mode of action, toxicol. & eco-toxicol. profiles, highly effective activities & insect species controlled, as well as its synthetic chemical and its research & development in application.

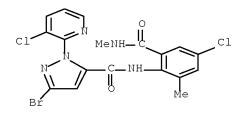
IT 500008-45-7, Rynaxypyr

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (Rynaxypyr, new insecticide and its research & development in application)

RN 500008-45-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-

[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)



L28 ANSWER 9 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2009:34901 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 151:213665

TITLE: Recent advance on development of insecticide and

acaricide

AUTHOR(S): Chai, Baoshan; Liu, Yuanxiong; Yang, Jichun; Liu,

Changling

CORPORATE SOURCE: Shenyang Research Institute of Chemical Industry,

Shenyang, Liaoning Province, 110021, Peop. Rep. China

SOURCE: Nongyao (2007), 46(12), 800-805, 809

CODEN: NONGFP; ISSN: 1006-0413

PUBLISHER: Nongyao Bianjibu

DOCUMENT TYPE: Journal; General Review

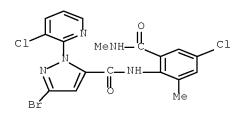
LANGUAGE: Chinese

AB A review. Recent advances of insecticides and acaricides were briefly reviewed. More than 20 compds. or products related to 12 kinds of insecticides and acaricides belong to ryanodines, tetronic acids, acrylonitrile, semicarbazone, nicotinoids, pyrroles, pyrazoles and pyrimidinamines with their activities were described. Some discovery and synthesis methods of insecticides and acaricides were introduced.

IT 500008-45-7, Chlorantraniliprole

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (recent advance on development of insecticide and acaricide)

RN 500008-45-7 CAPLUS



ACCESSION NUMBER: 2008:1182266 CAPLUS Full-text

DOCUMENT NUMBER: 151:94994

TITLE: Molecular mechanism of action of novel diamide

insecticides on ryanodine receptor

AUTHOR(S): Tang, Zhenhua; Tao, Liming

CORPORATE SOURCE: Shanghai Institutes for Biological Sciences, Chinese

Academy of Sciences, Shanghai, 200032, Peop. Rep.

China

SOURCE: Kunchong Xuebao (2008), 51(6), 646-651

CODEN: KCHPA2; ISSN: 0454-6296

PUBLISHER: Kunchong Xuebao Bianjibu DOCUMENT TYPE: Journal; General Review

LANGUAGE: Chinese

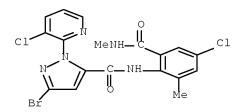
AΒ This review with a number of refs. is given on the structure and function of ryanodine receptors(RyR), regulation of intracellular calcium homeostasis by voltage-gated calcium channel and RyR/calcium release channel and mol. mechanisms of action of diamide insecticides(flubendiamide and chlorantraniliprole) on RyRs. Diamide insecticides stabilize insect RyR channels to open state, evoking massive calcium release from intracellular stores, and then disrupt the calcium homeostasis, and possess distinct pharmacol. characteristics, which are mediated by a binding site different from that of ryanodine. The action of this class of insecticides is highly specific to insect RyRs and results in selective toxicity. Diamide insecticides have a unique chemical structure and a novel mode of action and show excellent efficacy, a broad insecticidal spectrum against lepidopterous insect pests, excellent safety against various beneficial arthropods and natural enemies, and no cross-resistance to existing insecticides. They will be very suitable for insecticide resistance management and IPM programs. ΙT 500008-45-7, Chlorantraniliprole

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(mol. mechanism of action of novel diamide insecticides on ryanodine receptor)

RN 500008-45-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)



L28 ANSWER 11 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2008:1077208 CAPLUS Full-text

DOCUMENT NUMBER: 150:557002

TITLE: Recent advance on novel insecticidal anthranilic

diamides

AUTHOR(S): Chai, Baoshan; Lin, Dan; Liu, Yuanxiong; Liu,

Changling

CORPORATE SOURCE: Shenyang Research Institute of Chemical Industry,

Shenyang, Liaoning Province, 110021, Peop. Rep. China

SOURCE: Nongyao (2007), 46(3), 148-153

CODEN: NONGFP; ISSN: 1006-0413

PUBLISHER: Nongyao Bianjibu

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Chinese

AB A review summarized the recent advances on novel insecticidal anthranilic diamides classified by five different structures. The compds. of the anthranilic diamides with good activities were reported. And the synthesis methods and discovery process of chlorantraniliprole were introduced also.

IT 500008-45-7, Chlorantraniliprole

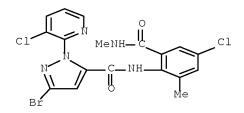
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(recent advance on novel insecticidal anthranilic diamides)

RN 500008-45-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-

[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)



L28 ANSWER 12 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2008:763121 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 149:145286

TITLE: Elucidation of the mode of action of Rynaxypyr, a

selective ryanodine receptor activator

AUTHOR(S): Cordova, Daniel; Benner, Eric A.; Sacher, Matthew D.;

Rauh, James J.; Sopa, Jeffrey S.; Lahm, George P.; Selby, Thomas P.; Stevenson, Thomas M.; Flexner, Lindsey; Caspar, Timothy; Ragghianti, James J.; Gutteridge, Steve; Rhoades, Daniel F.; Wu, Lihong;

Smith, Rejane M.; Tao, Yong

CORPORATE SOURCE: Stine-Haskell Research Center, DuPont Crop Protection,

Newark, DE, 19711, USA

SOURCE: Pesticide Chemistry (2007), 121-126. Editor(s):

Ohkawa, Hideo; Miyagawa, Hisashi; Lee, Philip W. Wiley-VCH Verlag GmbH & Co. KGaA: Weinheim, Germany.

CODEN: 69KIIH; ISBN: 978-3-527-31663-2

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

AB A review. We describe the mode of action of Rynaxypyr, a new insecticide currently in development at DuPont Crop Protection, which provides unprecedented lepidopteran control through action of insect ryanodine receptor channels.

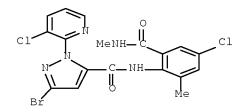
IT 500008-45-7, Rynaxypyr

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(elucidation of mode of action of insecticide Rynaxypyr)

RN 500008-45-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 13 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2008:763119 CAPLUS Full-text

DOCUMENT NUMBER: 149:121033

TITLE: Rynaxypyr: a new anthranilic diamide insecticide

acting at the ryanodine receptor

AUTHOR(S): Lahm, George P.; Stevenson, Thomas M.; Selby, Thomas

P.; Freudenberger, John H.; Dubas, Cristine M.; Smith, Ben K.; Cordova, Daniel; Flexner, Lindsey; Clark, Christopher E.; Bellin, Cheryl A.; Hollingshaus, J.

Gary

CORPORATE SOURCE: Stine-Haskell Research Center, DuPont Crop Protection,

Newark, DE, 19711, USA

SOURCE: Pesticide Chemistry (2007), 111-120. Editor(s):

Ohkawa, Hideo; Miyagawa, Hisashi; Lee, Philip W. Wiley-VCH Verlag GmbH & Co. KGaA: Weinheim, Germany.

CODEN: 69KIIH; ISBN: 978-3-527-31663-2

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

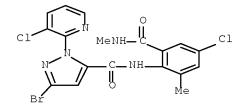
AB A review on Rynaxypyr, a potent ryanoide receptor (RyR) activator, the first new insecticide from the class of anthranilic diamides with exceptional insecticidal activity against a broad spectrum of Lepidoptera. Discovery of anthranilic diamide insecticides, discovery of Rynaxypyr, and biol.

attributes, toxicol., and mechanism of action of Rynaxypyr are discussed.

IT 500008-45-7, Rynaxypyr

RL: ADV (Adverse effect, including toxicity); AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses) (rynaxypyr is a new anthranilic diamide insecticide acting at the ryanodine receptor)

RN 500008-45-7 CAPLUS



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 14 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2008:78308 CAPLUS Full-text

DOCUMENT NUMBER: 149:372012

TITLE: Elucidation of the mode of action of Rynaxypyr, a

selective ryanodine receptor activator

AUTHOR(S): Cordova, Daniel; Benner, Eric A.; Sacher, Matthew D.;

Rauh, James J.; Sopa, Jeffrey S.; Lahm, George P.; Selby, Thomas P.; Stevenson, Thomas M.; Flexner, Lindsey; Caspar, Timothy; Ragghianti, James J.; Gutteridge, Steve; Rhoades, Daniel F.; Wu, Lihong;

Smith, Rejane M.; Tao, Yong

CORPORATE SOURCE: Stine-Haskell Research Center, DuPont Crop Protection,

Newark, DE, 19711, USA

SOURCE: Pesticide Chemistry (2007), 121-126. Editor(s):

Ohkawa, Hideo; Miyagawa, Hisashi; Lee, Philip W. Wiley-VCH Verlag GmbH & Co. KGaA: Weinheim, Germany.

CODEN: 69KIIH; ISBN: 978-3-527-31663-2

DOCUMENT TYPE: Conference; General Review

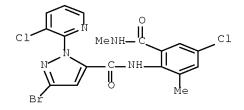
LANGUAGE: English

AB A review describes the mode of action of Rynaxypyr, a new insecticide currently in development of DuPont Crop protection, which provides unprecedented lepidopteran control through activation of insect ryanodine receptor channels (RyRs). Rynaxypyr is a highly potent and selective activator of insect RyRs. Activation of these receptors causes unregulated release of internal Ca2+ stores leading to store depletion, muscle paralysis, and ultimately insect death. Anthranilic diamides bind to a site on the RyR distinct from that of ryanodine or caffeine and appears to be impacted by the channel's state.

IT 500008-45-7, Rynaxypyr

RL: BSU (Biological study, unclassified); BIOL (Biological study) (elucidation of mode of action of Rynaxypyr, selective ryanodine receptor activator)

RN 500008-45-7 CAPLUS



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 15 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2008:78306 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 148:349096

TITLE: Rynaxypyr: a new anthranilic diamide insecticide

acting at the ryanodine receptor

AUTHOR(S): Lahm, George P.; Stevenson, Thomas M.; Selby, Thomas

P.; Freudenberger, John H.; Dubas, Christine M.; Smith, Ben K.; Cordova, Daniel; Flexner, Lindsey;

Clark, Christopher E.; Bellin, Cheryl A.;

Hollingshaus, J. Gary

CORPORATE SOURCE: Stine-Haskell Research Center, DuPont Crop Protection,

Newark, DE, 19711, USA

SOURCE: Pesticide Chemistry (2007), 111-120. Editor(s):

Ohkawa, Hideo; Miyagawa, Hisashi; Lee, Philip W. Wiley-VCH Verlag GmbH & Co. KGaA: Weinheim, Germany.

CODEN: 69KIIH; ISBN: 978-3-527-31663-2

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

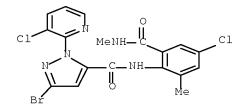
AB A review. The discovery of a new class of insecticides, the anthranilic diamides exhibiting their action by activation of the ryanodine receptor followed by release of intracellular Ca2+ stores, is summarized. The development of Rynaxypyr with outstanding laboratory and field activity on all major species of Lepidoptera at laboratory rates of 0.01-0.06 ppm is described. The level of activity is better than current com. stds.

IT 500008-45-7, Rynaxypyr

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(Rynaxypyr is a anthranilic diamide insecticide acting at the ryanodine receptor)

RN 500008-45-7 CAPLUS



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 16 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2007:215487 CAPLUS Full-text

DOCUMENT NUMBER: 147:546420

TITLE: Study of changes of formulation systems of lead-based

stabilizer of unplasticized polyvinyl chloride(PVC-U)

pipes for water supply

AUTHOR(S): Xu, Deyun

CORPORATE SOURCE: Fujian Aton Advanced Materials Technology Co., Ltd.,

Fuqing, 350304, Peop. Rep. China

SOURCE: Huaxue Jiancai (2006), 22(3), 11-12

CODEN: HUJIFL; ISSN: 1004-1672

PUBLISHER: Huaxue Jiancai Bianjibu DOCUMENT TYPE: Journal; General Review

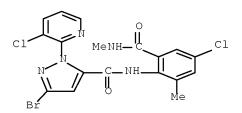
LANGUAGE: Chinese

AB A review with 4 refs. is given on changes of formulation systems of lead-based stabilizer of unplasticized polyvinyl chloride (PVC-U) pipes for water supply. Course of change and development of formula systems for unplasticized polyvinyl chloride pipes for water supply is described. Comparison and anal. of lead-based stabilizer, Ca-Zn compounded stabilizer, organic tin-rare-earth compounded stabilizer are carried out with regard to national standard guidance, processing and economic benefits. Proposal for change orientation of lead-based stabilizer is presented.

IT 500008-45-7

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (fungicide for seed treatment)

RN 500008-45-7 CAPLUS



L28 ANSWER 17 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2005:523210 CAPLUS <u>Full-text</u> DOCUMENT NUMBER: 143:21469

TITLE: Synergistic insecticidal compositions comprising

anthranilic acid amides

Funke, Christian; Fischer, Reiner; Fischer, Ruediger; INVENTOR(S):

Hungenberg, Heike; Andersch, Wolfram; Thielert,

Wolfgang; Kraus, Anton

Bayer Cropscience Aktiengesellschaft, Germany PATENT ASSIGNEE(S):

SOURCE: PCT Int. Appl., 62 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.		KIN	D DATE	APPLICATION NO. DATE
				WO 2004-EP13197 20041120 <
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CN, CO	, CR,	CU,	CZ, DE, DK,	DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH	, GM,	HR,	HU, ID, IL,	IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LF	, LS,	LT,	LU, LV, MA,	MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ	, OM,	PG,	PH, PL, PT,	RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TN	, TN,	TR,	TT, TZ, UA,	UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH	, GM,	KΕ,	LS, MW, MZ,	NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, B	, KG,	KΖ,	MD, RU, TJ,	TM, AT, BE, BG, CH, CY, CZ, DE, DK,
				IE, IS, IT, LU, MC, NL, PL, PT, RO,
SE, SI	, SK,	TR,	BF, BJ, CF,	CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN				
				DE 2004-102004021565 20040503 <
				AU 2004-294711 20041120 <
AU 2004294711				
				CA 2004-2547989 20041120 <
				EP 2004-798022 20041120 <
				GB, GR, IT, LI, LU, NL, SE, MC, PT,
				CZ, EE, HU, PL, SK, IS
CN 1889838		A	20070103	CN 2004-80035994 20041120 <
BR 200401/322		A	20070327	BR 2004-17322 20041120 <
JP 2007513102		I D	20070524	JP 2006-541832 20041120 <
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IN 243130 MX 2006006123		Z Z	20101001	MX 2006-6123 20060530 <
US 20070142327		<u>⊼</u> Δ1	20070621	
KR 2006121262		Δ	20061128	KR 2006-7013185 20060630 <
KR 870171		R1	20081124	111 2000 7013103 20000030 1
KR 2008090579		A	20081008	KR 2008-7023366 20080924 <
US 20100249070		A1	20100930	US 2010-797179 20100609 <
IORITY APPLN. INF			2020000	DE 2003-10356549 A 20031204 <
				DE 2004-102004021565A 20040503
				WO 2004-EP13197 W 20041120
				US 2006-581346 A1 20060602

KR 2006-7013185 A3 20060630

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 143:21469

AB Synergistic insecticidal compns. comprise anthranilic acid amides and other insecticides selected from (thio)phosphates and/or carbamates.

IT 852994--75--3

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (synergistic insecticidal composition)

RN 852994-75-3 CAPLUS

CN Phosphorothioic acid, 0,0-diethyl 0-(3,5,6-trichloro-2-pyridinyl) ester, mixt. with

N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide
(9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4 CMF C21 H18 Cl2 F3 N5 O2

CM 2

CRN 2921-88-2

CMF C9 H11 Cl3 N O3 P S

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD

(5 CITINGS)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 18 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2005:523209 CAPLUS  $\underline{\text{Full-text}}$ 

DOCUMENT NUMBER: 143:21468

TITLE: Synergistic insecticidal and acaricidal compositions

comprising anthranilic acid amines

INVENTOR(S): Funke, Christian; Fischer, Reiner; Fischer, Ruediger;

Hungenberg, Heike; Andersch, Wolfram; Thielert,

Wolfgang; Kraus, Anton

PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany

SOURCE:

PCT Int. Appl., 68 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT												DATE				
WO 2005												20041120 <				
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SIGNMENT	HISTO	RY F	OR II.	S PA'	TENT	AVA	TLAB	LE TI	N LS	US D	TSPL	AY F	ORMA'	Т		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 143:21468

AB Synergistic insecticidal and acaricidal compns. comprise cyclic ketoenols or other insecticides (amitraz, buprofezin, triazamate, pymetrozine, pyriproxifen, flonicamid or pirimicarb) and addnl. insecticides from the group of anthranilic acid amines.

IT 853058-37-4 853058-38-5 853058-39-6

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (synergistic insecticidal and acaricidal composition)

RN 853058-37-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-, mixt. with

2-[(1,1-dimethylethyl)imino]tetrahydro-3-(1-methylethyl)-5-phenyl-4H-1,3,5-thiadiazin-4-one (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4 CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 69327-76-0 CMF C16 H23 N3 O S

RN 853058-38-5 CAPLUS

CN 3-Pyridinecarboxamide, N-(cyanomethyl)-4-(trifluoromethyl)-, mixt. with

N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4 CMF C21 H18 C12 F3 N5 O2

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

CM 2

CRN 158062-67-0 CMF C9 H6 F3 N3 O

RN 853058-39-6 CAPLUS

CN Carbonic acid,

 $3-(2,5-{\rm dimethylphenyl})-8-{\rm methoxy-2-oxo-1-azaspiro}\,[4.5]{\rm dec-3-en-4-yl\ ethyl\ ester}, \ {\rm mixt.\ with\ N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide (9CI) (CA INDEX NAME)$ 

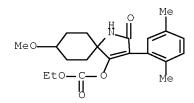
CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 382608-10-8 CMF C21 H27 N O5



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(3 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 19 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2005:523202 CAPLUS Full-text

DOCUMENT NUMBER: 143:39512

TITLE: Synergistic insecticidal compositions comprising

anthranilic acid amides

INVENTOR(S): Funke, Christian; Fischer, Reiner; Fischer, Ruediger;

Hungenberg, Heike; Andersch, Wolfram; Thielert,

Wolfgang; Kraus, Anton

PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.					KIND DATE				APPL	ICAT	DATE								
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PRIORITY APPLN. INFO.:
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                                                                 A3 20041120
                                             WO 2004-EP13196
                                                                  W 20041120
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 143:39512

Ι

The invention relates to synergistic insecticide combinations comprising AB anthranilic acid amides I [A1, A2 = O or S; X1 = N or (un) substituted CH; R1 = H, (un) substituted alkyl alkenyl, alkynyl, etc.; R2 = H, (cyclo) alkyl, alkenyl, alkynyl, alkoxy, alkylamino, etc.; R3 = H, (un)substituted alkyl, alkenyl, alkynyl, Ph, PhO, etc.; R2NR3 = ring; R4 = H, alkyl, alkenyl, alkynyl, etc.; R5, R8 = h, halo, (un)substituted (halo)alkyl, NH2, SH, etc.; R7 = H, halo, (halo)alkyl, (halo)alkoxy, etc.; R9 = halo, haloalkyl, haloalkoxy or halosulfinyl] and another insecticides. 853072-26-1 853072-27-2 853072-28-3 ΤТ 853072-29-4 853072-30-7 853072-31-8 853072-32-9 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (synergistic insecticidal composition) RN 853072-26-1 CAPLUS CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3carbonitrile (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 120068-37-3

CMF C12 H4 C12 F6 N4 O S

RN 853072-27-2 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-, mixt. with 2-chloro-N-[[[4-(trifluoromethoxy)phenyl]amino]carbonyl]benzamide (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 64628-44-0

CMF C15 H10 C1 F3 N2 O3

RN 853072-28-3 CAPLUS

CN Benzoic acid, 3-methoxy-2-methyl-, 2-(3,5-dimethylbenzoyl)-2-(1,1-dimethylethyl)hydrazide, mixt. with

 $\begin{tabular}{ll} N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide (9CI) (CAINDEX NAME) \\ \end{tabular}$ 

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 161050-58-4 CMF C22 H28 N2 O3

RN 853072-29-4 CAPLUS
CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-, mixt. with 5-amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-4-(ethylsulfinyl)-1H-pyrazole-3-carbonitrile (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4
CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 181587-01-9 CMF C13 H9 C12 F3 N4 O S

RN 853072-30-7 CAPLUS
CN Indeno[1,2-e][1,3,4]oxadiazine-4a(3H)-carboxylic acid,
7-chloro-2,5-dihydro-2-[[(methoxycarbonyl)[4(trifluoromethoxy)phenyl]amino]carbonyl]-, methyl ester, (4aS)-, mixt.
with N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide (9CI)
(CA INDEX NAME)

CM 1

CRN 500008-00-4 CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 173584-44-6

CMF C22 H17 C1 F3 N3 O7

Absolute stereochemistry. Rotation (+).

RN 853072-31-8 CAPLUS

CN Avermectin B1, 4''-deoxy-4''-(methylamino)-, (4''R)-, mixt. with

 $\begin{tabular}{ll} N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide (9CI) (CA INDEX NAME) \\ \end{tabular}$ 

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 119791-41-2 CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 853072-32-9 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-, mixt. with N-[[[4-[2-chloro-4-(trifluoromethyl)phenoxy]-2-fluorophenyl]amino]carbonyl]-2,6-difluorobenzamide (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

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CM 2

CRN 101463-69-8

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OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 20 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2005:470211 CAPLUS Full-text

DOCUMENT NUMBER: 143:2640

TITLE: Synergistic insecticidal combinations comprising

anthranilic acid amides and pyrethroids.

INVENTOR(S): Funke, Christian; Fischer, Reiner; Fischer, Ruediger;

Hungenberg, Heike; Andersch, Wolfram; Thielert,

Wolfgang; Kraus, Anton

PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 64 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	ΝΟ.			KIN:	D :	DATE		i	APPL	ICAT	ION I	.O.		D.	ATE	
WO 2005	04871	L3		A1	2	20050	0602	V	vo 20	04-E	P123	30		20	0410	30 <
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	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
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AU 2004																
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								1	WO 2	004-	EP12.	330	Ţ	w 2	0041	030
SIGNMENT H	ISTO	RY F	OR U	S PA	TENT	AVA	ILAB	LE I	N LS	US D	ISPL	AY F	ORMA'	Γ		

GI

OTHER SOURCE(S): MARPAT 143:2640

Ι

AB Synergistic insecticidal combinations comprise anthranilic acid amides I [A1, A2 = O or S; X1 = N or (un) substituted NH; R1 = H, (un) substituted alkyl, alkenyl, alkynyl or cycloalkyl; R2 = H, alkyl, alkenyl, alkynyl, alkoxy, cycloalkyl, etc.; R3 = H, (un) substituted alkyl, alkenyl, etc.; R2NR3 = ring; R4 = H, (halo) alkyl, (halo) alkenyl, (halo) alkynyl, (halo) cycloalkyl, (un) substituted Ph, benzyl, PhO, etc; R5, R8 = H, halo, (un) substituted (halo) alkyl, etc.; R7 = H, halo (halo) alkyl, (halo) alkoxy, etc.; R9 = haloalkyl, haloalkoxy, haloalkylsulfinyl or halo] and pyrethroids.

IT 852369-60-9 852369-62-1 852369-63-2
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (synergistic insecticidal combination)

RN 852369-60-9 CAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dibromoethenyl)-2,2-dimethyl-, (S)-cyano(3-phenoxyphenyl)methyl ester, (1R,3R)-, mixt. with

N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

$$\begin{array}{c|c} & & & & \\ & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

CM 2

CRN 52918-63-5

CMF C22 H19 Br2 N O3

Absolute stereochemistry.

CN Cyclopropanecarboxylic acid,

3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propenyl]-

2,2-dimethyl-, (R)-cyano(3-phenoxyphenyl)methyl ester, (1S,3S)-rel-, mixt. with N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 91465-08-6

CMF C23 H19 C1 F3 N O3

Relative stereochemistry. Double bond geometry as shown.

RN 852369-63-2 CAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, cyano(4-fluoro-3-phenoxyphenyl)methyl ester, mixt. with

N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CRN 68359-37-5

CMF C22 H18 C12 F N O3

$$C1_2C \longrightarrow CH \longrightarrow CH \longrightarrow F$$

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD

(4 CITINGS)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 21 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2005:470210 CAPLUS Full-text

DOCUMENT NUMBER: 143:2639

TITLE: Synergistic insecticidal and acaricidal compositions

comprising anthranilic acid amides

INVENTOR(S): Funke, Christian; Bretschneider, Thomas; Fischer,

Reiner; Fischer, Ruediger; Hungenberg, Heike;

Andersch, Wolfram; Thielert, Wolfgang; Kraus, Anton

PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 79 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	NO.			KIN	D :	DATE			APPL	ICAT	ION :	NO.		D	ATE	
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WO 20050	J48/J			A1	2	20050	1602	V	VO 20	U4-E	P123	29		20	0410	30 <
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	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
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             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
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    BR 2004016035
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    CN 1901798
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    CN 1901798
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    JP 2007510682
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    JP 4754495
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PRIORITY APPLN. INFO.:
                                            DE 2003-10353281
                                            EP 2004-791082
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                                            CN 2004-80040065
                                                                A3 20041030
                                            WO 2004-EP12329
                                                                W 20041030
                                            US 2007-578512
                                                                A3 20070405
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 143:2639
GI

AB Synergistic insecticidal and acaricidal compns. comprise keto enols I [X = (halo)alkyl, Br or alkoxy; Y = H, (halo)alkyl, halo or alkoxy; Z = alkyl, halo or alkoxy; m = 0,1-3; A3 = H, (halo)alkyl, (halo)alkenyl, (halo)alkynyl, etc.; A4 = H, alkyl or alkoxy; A3CA4 = cycle; G1 = H, COR, CO2R1, etc.; R = (halo)alkyl, (halo)alkenyl, (halo)alkoxyalkyl, (halo)alkylthioalkyl, (un)substituted Ph, etc.; R1 = (halo)alkyl, (halo)alkenyl, (halo)alkynyl or

(halo)polyalkoxyalky] or any of a large number of known insecticides and acaricides on one hand and anthranilic acid amides on the other hand.

IT 852328-96-2 852328-97-3 852328-98-4 852328-99-5 852329-00-1 852329-01-2

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (synergistic insecticidal and acaricidal composition)

RN 852328-96-2 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-, mixt. with N-[2,6-bis(1-methylethyl)-4-phenoxyphenyl]-N'-(1,1-dimethylethyl)thiourea (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4 CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 80060-09-9 CMF C23 H32 N2 O S

RN 852328-97-3 CAPLUS

CN Avermectin B1, mixt. with N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CRN 71751-41-2

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 852328-98-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-, mixt. with spinosad (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 168316-95-8

CMF Unspecified

CCI MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 852328-99-5 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-, mixt. with 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano-2,4,3-benzodioxathiepin 3-oxide (9CI) (CA INDEX NAME)

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 115-29-7

CMF C9 H6 C16 O3 S

RN 852329-00-1 CAPLUS

CN Butanoic acid, 2,2-dimethyl-, 3-(2,4-dichlorophenyl)-2-oxo-1-oxaspiro[4.5]dec-3-en-4-yl ester, mixt. with

 $\begin{tabular}{ll} N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide (9CI) (CA INDEX NAME) \\ \end{tabular}$ 

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CRN 148477-71-8 CMF C21 H24 C12 O4

RN 852329-01-2 CAPLUS

CN Butanoic acid, 3,3-dimethyl-, 2-oxo-3-(2,4,6-trimethylphenyl)-1-oxaspiro[4.4]non-3-en-4-yl ester, mixt. with

 $\begin{tabular}{ll} N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide (9CI) (CAINDEX NAME) \\ \end{tabular}$ 

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 283594-90-1 CMF C23 H30 O4

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 22 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2005:470209 CAPLUS Full-text

DOCUMENT NUMBER: 143:2638

TITLE: Synergistic insecticidal compositions comprising

nicotinic receptor agonists and antagonists and

anthranilic acid amides

INVENTOR(S): Funke, Christian; Fischer, Reiner; Fischer, Ruediger;

Hungenberg, Heike; Andersch, Wolfram; Thielert,

Wolfgang; Kraus, Anton

PATENT ASSIGNEE(S): Bayer Cropscience Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 71 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

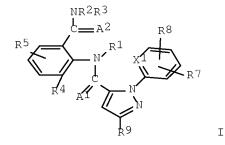
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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EP	P 1686857				A1	2	20060	809	E	EP 20	04 - 7	9108	1		20	0410	30 <
EP	1686	857			В1		2008	1210									
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PRIORITY APPLN. INFO.:
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```

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 143:2638
GI



Synergistic insecticidal compns. comprising nicotinic receptor agonists and antagonists RNACX:XE [R= H, (un) substituted acyl, alkyl, aryl, etc.; A = H, acyl, alkyl, aryl, etc; E = electron receptor; X = CH or N; Z = alkyl, OR, SR or NR2; ANCZ = cycle] and anthranilic acid amides I [A1, A2 = O or S; X1 = N or C10; R1 = H, (un) substituted alkyl, alkenyl, alkynyl or cycloalkyl, the substituents being R6, halo, CN, etc.; R2 = H, alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, etc.; R3 = H, alkyl, alkenyl, etc.; R2NR3 = ring; R4 = H, (halo)alkyl, (halo)alkenyl, etc.; R5, R8 = H, halo, (un) substituted (halo)alkyl, etc.; R6 = CH(:E1), LCH(E1), etc.; E1 = O, S, NH, N:S:O, N(NO)2, etc.; L = O, S, NH, etc.; R7 = H, halo, (halo)alkyl, (halo)alkoxy, etc.; R9 = halo, haloalkyl, haloalkoxy or halosulfinyl].

IT 852326-20-6 852326-21-7 852326-22-8

RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (synergistic insecticidal composition)

RN 852326-20-6 CAPLUS

IH-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3(trifluoromethyl)-, mixt. with (2E)-1-[(6-chloro-3-pyridinyl)methyl]-N-

nitro-2-imidazolidinimine (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 138261-41-3 CMF C9 H10 C1 N5 O2

RN 852326-21-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-, mixt. with [3-[(6-chloro-3-pyridinyl)methyl]-2-thiazolidinylidene]cyanamide (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CRN 111988-49-9 CMF C10 H9 C1 N4 S

Double bond geometry as shown.

RN 852326-22-8 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-, mixt. with [C(E)]-N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitroguanidine (9CI) (CA INDEX NAME)

CM 1

CRN 500008-00-4

CMF C21 H18 C12 F3 N5 O2

CM 2

CRN 210880-92-5

## CMF C6 H8 C1 N5 O2 S

Double bond geometry as shown.

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD

(5 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 23 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2004:1127362 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 142:74616

TITLE: Process for preparation of fused oxazinones

INVENTOR(S): Taylor, Eric G.

PATENT ASSIGNEE(S): E.I. Dupont de Nemours and Company, USA

SOURCE: PCT Int. Appl., 79 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	NO.			KIN	D	DATE			APPL	ICAT	ION	NO.		D.	ATE	
WO 2004	11103	 30		A1	_ 2	20041	1223	V	vo 20	04-U	S190	68		20	0406	10 <
W:	ΑE,	AG,	AL,	ΑM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	ВG,	BR,	BW,	BY,	BZ,	CA,	CH,
	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
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	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,
	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,
	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW
RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,
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	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	ΙT,	LU,	MC,	NL,	PL,	PT,	RO,	SE,
	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,
	SI, SK, SN, TD,															
AU 2004	24773	38		A1	2	20041	1223	I	AU 20	04 - 2	4773	8		20	0406	10 <
EP 1631	564			A1	2	20060	308	E	EP 20	04 - 7	5531	3		20	0406	10 <
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CN 100376565 C 200803 BR 2004011195 A 200607							725	E	BR 20	04 - 1	1195			20	0406	10 <
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JP 4543	2010	0915														
ZA 2005	0087	71		Α	2	20080	0430	2	ZA 20	05-8	771			20	0406	10 <
TW 3136	86			В	2	20090	0821	7	rw 20	04-1	1697	1		20	0406	11 <

US 20060241304 Α1 20061026 US 2005-554090 20051021 <--US 7276601 В2 20071002 IN 2005DN05088 IN 2005-DN5088 20051107 <--Α 20080201 Р PRIORITY APPLN. INFO.: US 2003-477877P 20030612 <--WO 2004-US19068 W 20040610

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 142:74616

GT

K J

AB This invention pertains to a method for producing fused oxazinones with general formula I [wherein J=(un) substituted carbon moiety; K=(un) substituted 5- or 6-membered (hetero) aromatic ring], which comprises reacting a carboxylic acid with sulfonyl chloride and isatoic acid anhydride in the presence of a tertiary amine. There are 11 claims, but no examples given.

IT 438450-41-0 500008-00-4 500008-44-6 500008-45-7 500008-60-6 500008-62-8 500008-79-7 500008-80-0 500008-84-4

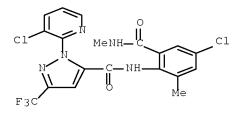
1053840-70-2

RL: PRPH (Prophetic)

(Process for preparation of fused oxazinones)

RN 438450-41-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)



RN 500008-00-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-44-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-45-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-60-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-62-8 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-79-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

3-chloro-N-[4-chloro-2-[(ethylamino)carbonyl]-6-

methylphenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-80-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-[(ethylamino)carbonyl]-6-methylphenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-84-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

3-bromo-N-[4-chloro-2-[(ethylamino)carbonyl]-6-

methylphenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 1053840-70-2 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-

[(propylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 24 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2004:270097 CAPLUS Full-text

DOCUMENT NUMBER: 140:282468

TITLE: Cloning and characterization of insect ryanodine

receptors and their use for screening for insecticidal

compounds

INVENTOR(S): Caspar, Timothy; Cordova, Daniel; Gutteridge, Steven;

Rauh, James J.; Smith, Rejane M.; Wu, Lihong; Tao,

Yong

PATENT ASSIGNEE(S): E. I. Du Pont de Nemours and Company, USA

SOURCE: PCT Int. Appl., 731 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	TENT																
WO	20040	2704	12		A2	2	20040	0401									23 <
WO	2004																
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AB The genes encoding ryanodine receptor homologs are provided from multiple insect families including lepidopteran tobacco budworm (Heliothis virescens), homopteran green peach aphid (Myzus persicae), corn plant hopper (Peregrinus maidis), cotton melon aphid (Aphis gossypii), and fruitfly (Drosophila melanogaster). The full-length genes were isolated, cloned, and amplified in bacterial cells. Expression in insect cells shows that the recombinant protein folds into a functional calcium release channel. The genes and their corresponding polypeptides have a number of uses including, but not limited to, the isolation of other pest ryanodine receptors, the development of screens to identify insecticidally active compds., use of fragments of genes as pesticides, fragments of protein for antibody production, fragments of protein for determination of the structure of insecticide binding sites, and identification of insecticides that disrupt the calcium balance in cells through other messengers that interact with the receptor calcium release mechanism. Methods are outlined for overcoming toxic effects of expressing recombinant proteins in host cells.

362639-48-3 362639-62-1 438450-41-0 ΙT 500005-94-7 500006-21-3 500008-00-4 500008-45-7 500008-60-6 500008-44-6 500008-62-8 RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses) (cloning and characterization of insect ryanodine receptors and their use for screening for insecticidal compds.) RN 362639-48-3 CAPLUS 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-CN [(methylamino)carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 362639-62-1 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 438450-41-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500005-94-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]- (CA INDEX NAME)

RN 500008-00-4 CAPLUS
CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-44-6 CAPLUS
CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-45-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-60-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-62-8 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD

(7 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 25 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2004:101149 CAPLUS  $\underline{\text{Full-text}}$ 

DOCUMENT NUMBER: 140:146150

TITLE: Method for preparing fused oxazinones by

cyclocondensation of ortho-amino aromatic carboxylic

acids with carboxylic acids

INVENTOR(S): Taylor, Eric Deguyon

PATENT ASSIGNEE(S): E.I. Du Pont de Nemours and Company, USA

SOURCE: PCT Int. Appl., 80 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT	NO.			KIN						ICAT					ATE	
		01144 10114			<b>A</b> 2	2	20040	0205									29 <
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		PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	TM,	TN,
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	U 2003257028 B2					2010	1209										
EP	1549	643			A2	2	20050	706	E	EP 20	03-7	7209	7		20	0307	29 <
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	R:																PT,
								MK,									
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CN	1671	703	_		A	2	20050	)921		CN 20	03-8	1820	2		20	0307	29 <
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		50120															29 <
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US 2003-446438P P 20030211

<-- WO 2003-US23821 W 20030729

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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 140:146150

GΙ

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AΒ A method for preparing a fused oxazinone [I; J = an optionally substituted]carbon moiety; K together with the two contiguous liking carbon atoms = each (un) substituted a fused Ph ring or a fused 5- or 6-membered heteroarom. ring] is disclosed in which (1) a carboxylic acid of formula J-CO2H is contacted with a sulfonyl chloride of formula LS(0)2Cl [L= each (un)substituted alkyl, haloalkyl, or Ph] in the presence of an optionally substituted pyridine compound, the nominal mole ratio of sulfonyl chloride to carboxylic acid being from about 0.75 to 1.5; (2) the mixture prepared in (1) is contacted with an ortho-amino aromatic carboxylic acid in the presence of an optionally substituted pyridine compound, the nominal mole ratio of the ortho-amino aromatic carboxylic acid to carboxylic acid (II; K = same as above) charged in (1) being from about 0.8 to 1.2; and (3) addnl. sulfonyl chloride is added to the mixture prepared in (2), the nominal mole ratio of addnl. sulfonyl chloride added in (3) to carboxylic acid charged in (1) being at least about 0.5. More specifically disclosed is a method for preparing a compound of formula (III) [X = N, CR6; Y = N, CH; R1 = H, R2 = H, Me; R3 = C1-6 alkyl;R4 = C1-4 alkyl, halo; R5 = H, C1-4 alkyl, C1-4 haloalkyl, halo; R6, R7 = H, C1-4 alkyl, C1-4 haloalkyl, halo, cyano, C1-4 haloalkyl; R8 = H, C1-4 alkyl, C2-4 alkenyl, C2-4 alkynyl, C3-6 cycloalkyl, C1-4 haloalkyl, C2-4 haloalkenyl, C2-4 haloalkynyl, C3-6 halocycloalkyl, halogen, cyano, NO2, C1-4 alkoxy, C1-4 haloalkoxy, C1-4 alkylthio, C1-4 alkylsulfinyl, C1-4 alkylsulfonyl, C1-4 alkylamino, C2-8 dialkylamino, C3-6 cycloalkylamino, (C1-4 alkyl)(C3-6 cycloalkyl)amino, etc.; R9 = CF3, OCF3, OCHF2, OCH2CF3, S(0) pCF3, S(0) pCHF2, halo; p = 0-2 using a compound of formula (IV; R1 -R5 = same as above; R7-R9 = same as above; X, Y = same as above) that is characterized by preparing the fused oxazinone IV by the method above, using a compound of the formula LS(0)2Cl as the sulfonyl chloride, a compound of formula (V) (R7-R9 = same as above) as the carboxylic acid, and a compoundof formula (VI) (R4, R5 = same as above) as the ortho-amino aromatic carboxylic acid.

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IT 438450-41-0 500008-00-4 500008-44-6 500008-45-7 500008-60-6 500008-62-8 500008-79-7 500008-80-0 500008-84-4 1053840-70-2
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RL: PRPH (Prophetic)
(Method for preparing fused oxazinones by cyclocondensation of ortho-amino aromatic carboxylic acids with carboxylic acids)

RN 438450-41-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-00-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-44-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-45-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-60-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-62-8 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-79-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

3-chloro-N-[4-chloro-2-[(ethylamino)carbonyl]-6-methylphenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-80-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-[(ethylamino)carbonyl]-6-methylphenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-84-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

3-bromo-N-[4-chloro-2-[(ethylamino)carbonyl]-6-methylphenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 1053840-70-2 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[(propylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 26 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2003:319608 CAPLUS  $\underline{\text{Full-text}}$ 

DOCUMENT NUMBER: 138:316207

TITLE: Preparation of iminobenzoxazines, iminobenzthiazines

and iminoquinazolines for controlling invertebrate

pests

INVENTOR(S): Selby, Thomas Paul

PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA

SOURCE: PCT Int. Appl., 158 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATEN	1T ]	NO.			KIN	D	DATE		1	APPL	ICAT	ION :	NO.		D.	ATE	
WO 20	030	3273	31		A1	_ 2	20030	)424	V	vo 20	02-U	S328	45		20	0210	 15 <
M	₹:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	AZ,	BA,	BB,	ВG,	BR,	BY,	BZ,	CA,	CH,	CN,
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		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NΖ,	OM,	PH,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW						
F	₹W:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑM,	ΑZ,	BY,
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AU 2002343512 A1 200304					428	I	AU 20	02-3	4351	2		20	0210	15 <			
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CN 10					_		2009	0624									
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	P 4317752 B2 2009																
	2298007 C2 2007042 2319972 T3 2009051						_		•		-		_ •		15 <		
ES 23								-			-				_	-	15 <
US 20	040	2148	328		A1	2	20041	1028	Ţ	JS 20	04 - 4	8823	3		20	0402	226 <

US 7148217	B2	20061212			
IN 2004DN00587	A	20091030	IN 2004-DN587		20040309 <
MX 2004003445	A	20040708	MX 2004-3445		20040413 <
KR 840083	B1	20080619	KR 2004-7005481		20040414 <
US 20060258649	A1	20061116	US 2006-490898		20060721 <
US 7326704	B2	20080205			
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			WO 2002-US32845	W	20021015
<					
			US 2004-488233	A3	20040226
OTHER COHPORION.	MADDAG	T 120.216207			

OTHER SOURCE(S): MARPAT 138:316207

GΙ

AΒ The title compds. I [B = 0, S or NR3; J = (un) substituted Ph, naphthyl, 5or 6-membered heteroarom. ring or an aromatic 8-, 9- or 10-membered fused heterobicyclic ring; R1 = H, alkyl, alkenyl, alkynyl, (un) substituted Ph, PhO, benzyl, etc.; R2 = H, alkyl, alkenyl, alkynyl, etc.; R3 = alkyl, alkenyl, alkynyl, etc.; n = 1-4] are prepared as pesticides. specifically insecticides.

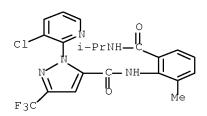
IT362639-62-1P

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate in preparation of iminobenzoxazine derivative pesticide)

RN 362639-62-1 CAPLUS

1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[[(1-CN methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(3 CITINGS)

7 REFERENCE COUNT: THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 27 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2003:261833 CAPLUS Full-text DOCUMENT NUMBER: 138:287669

TITLE: Preparation of pyrazolylcarbonyl pyridinyl

anthranilamides as arthropodicides

INVENTOR(S): Zimmerman, William Thomas

PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA

SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	NO.			KIN	D	DATE			APPL	ICAT	ION 1	NO.		D.	ATE	
WO 2003	02709	9		A1	:	20030	0403	V	vo 20	02-U	S282	74		20	0209	06 <
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	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NΖ,	OM,	PH,
	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,
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EP 14383 EP 1438	305 205			AI D1		20040	) / Z I	E	5P ZU	02-7	9956	/		20	0209	06 <
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BR 2002		,								,	,	,	,		0209	n6 <
CN 1556	806	, ,		Α		20041	1222	(	N 20	02-8	1857	0		20	0203	06 <
CN 1279						2006		`	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	01 0	100,	•			000	
JP 2005									JP 20	03-5	3068	7		20	0209	06 <
ES 2271:									S 20	02-7	9956	7		20	0209	06 <
US 2004	01861	41		A1	2	20040	0923	J	JS 20	04 - 4	8509	3		20	0401	26 <
US 7179	824			В2		2007	0220									
IN 2004	TN 2004MN00089					20050	)429	]	IN 20	04-M	N89			20	0402	:05 <
MX 2004	MX 2004002647					20040	0607	N	1X 20	04-2	647			20	0403	19 <
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								,	WO 2	002-	US28	274	1	W 2	0020	906
-																
HER SOURCE	(S):			MAR	PAT	138:	2876	69								

GI

AΒ Title compds. [I; R1, R2 = H, alkyl, alkenyl, alkynyl, cycloalkyl, haloalkyl, haloalkenyl, haloalkynyl, halo, cyano, alkoxy, haloalkoxy, alkylthio, alkylsulfonyl, trialkylsilyl, etc.; R3 = H, alkyl, haloalkyl, halo, cyano, NO2, alkoxy, haloalkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, haloalkylthio, alkoxycarbonyl, etc.; R4 = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl; R5 = H, alkyl, alkenyl, alkynyl, cycloalkyl, haloalkyl, haloalkenyl, haloalkynyl, halocycloalkyl, halo, cyano, CO2H, CONH2, NO2, OH, alkoxy, haloalkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, alkylcarbonyl, alkoxycarbonyl, trialkylsilyl, etc.], were prepared Thus, 1-(3-chloro-2-pyridinyl)-3-trifluoromethyl-1H- pyrazole-5-carboxylic acid (preparation given) was stirred with (COCl)2 and cat. DMF in CH2Cl2 to give crude acid chloride, which was refluxed 3 h with 8-methyl-2H-3,1-benzoxazine-2,4(1H)-dione (preparation given) and pyridine in MeCN to give 2-[1-(3-chloro-2-pyridinyl)-3-trifluoromethyl-1H-pyrazol-5yl]-8-methyl-4H-3,1-benzoxazin-4-one. The latter was refluxed 1.5 h with Me2CHNH2 to give 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[[(1methylethyl)amino]carbonyl]phenyl]-3-trifluoromethyl-1H-pyrazole-5carboxamide. This was stirred overnight with DBU in MeCN to give N-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[[(1-methyl-6-[[1-methyl-6-[[1-methyl-6-[[1-methyl-6-[[1-methyl-6-[1-methyl-6-[[1-methyl-6-[1-methyl-6-[[1-methyl-6-[1-methylmethylethyl)amino]carbonyl]phenyl]-5-trifluoromethyl-1H-pyrazole-3carboxamide. The latter at 250 ppm on radishes preinfested with Plutella xylostella gave ≤10% feeding damage.

IT 362639-62-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrazolylcarbonyl pyridinyl anthranilamides as arthropodicides)

RN 362639-62-1 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 28 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2003:242097 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 138:267201

TITLE: Pesticidal compositions for coating plant propagation

material containing anthranilamides

INVENTOR(S): Berger, Richard Alan; Flexner, John Lindsey PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA

SOURCE: PCT Int. Appl., 147 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA'	TENT														D.		
WO																	 10 <
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		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW						
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ES 2291500	Т3	20080301	ES 2002-775972	20	0020910 <
IL 159947	А	20091224	IL 2002-159947	20	0020910 <
PL 206331	В1	20100730	PL 2002-369981	20	0020910 <
ZA 2004000413	А	20050120	ZA 2004-413	20	0040120 <
US 20040209923	A1	20041021	US 2004-485125	20	0040126 <
US 7696232	B2	20100413			
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IN 218482	A1	20080509			
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KR 783260	B1	20071206	KR 2004-7004134	21	0040320 <
IN 2005MN00443	A	20050930	IN 2005-MN443	21	0050517 <
IN 218604	A1	20080509			
US 20100152194	A1	20100617	US 2010-711285	21	0100224 <
PRIORITY APPLN. INFO.:			US 2001-323941P	P 20	0010921 <
			WO 2002-US30302	W 2	20020910
<					
			US 2004-485125	A3 20	0040126 <

US 2004-485125 ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 138:267201

GΙ

AB An invertebrate pest control composition for coating a propagule comprises (1) a biol. effective amount of an anthranilamide compds. I (Markush included), an N-oxide thereof or an agriculturally suitable salt thereof, and (2) a film former or adhesive agent. Arthropodicidal composition containing anthranilamide compds. I may further comprise addnl. biol. active compds. selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones,  $\gamma$ -aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics, and fungicides. The propagule is a seed of cotton, maize, soybean, rice, etc., or a rhizome, tuber, bulb or corm, or viable division thereof, of potato, sweet potato, garden onion, tulip, daffodil, crocus hyacinth, etc., or is a stem or leaf cutting.

IT 1053840-70-2 1064390-23-3 1064390-28-8

1064394-48-4 1064395-78-3

RL: PRPH (Prophetic)

(Pesticidal compositions for coating plant propagation material containing anthranilamides)

RN 1053840-70-2 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[(propylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 1064390-23-3 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-1-(3,4-dichloro-2-pyridinyl)-N-[2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]- (CA INDEX NAME)

RN 1064390-28-8 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

1-(3,4-dichloro-2-pyridinyl)-N-[2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 1064394-48-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

1-(3-chloro-4-fluoro-2-pyridinyl)-N-[2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 1064395-78-3 CAPLUS
CN 1H-Pyrazole-5-carboxamide,
3-bromo-1-(3-chloro-2-pyridinyl)-N-[2-methyl-6[(2-propyn-1-ylamino)carbonyl]phenyl]- (CA INDEX NAME)

362639-49-4 362639-50-7 ΙT 362639-48-3 500005-94-7 500006-11-1 500006-21-3 500007-36-3 500007-53-4 500006-86-0 500007-55-6 500007-70-5 500007-71-6 500007-73-8 500007-90-9 500008-79-7 500008-80-0 500008-84-4 500009-09-6 500009-10-9 500011-53-0 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses) (anthranilamide compds. as pesticides for plant propagation material) RN 362639-48-3 CAPLUS 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-CN [(methylamino)carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 362639-49-4 CAPLUS
CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2[(ethylamino)carbonyl]-6-methylphenyl]-3-(trifluoromethyl)- (CA INDEX

NAME)

RN 362639-50-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[(2-propyn-1-ylamino)carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500005-94-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

3-bromo-1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-

[[(1-methylethyl)amino]carbonyl]phenyl]- (CA INDEX NAME)

RN 500006-11-1 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-1-(3-chloro-2-pyridinyl)-N-[2-[(ethylamino)carbonyl]-6-methylphenyl]- (CA INDEX NAME)

RN 500006-86-0 CAPLUS
CN 1H-Pyrazole-5-carboxamide,
1-(3-chloro-2-pyridinyl)-N-[3,6-dimethyl-2-[[(1-methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500007-53-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

1-(3-chloro-2-pyridinyl)-N-[2,3-dimethyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500007-55-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2,3-dimethyl-6-[(methylamino)carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500007-70-5 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-1-(3-chloro-2-pyridinyl)-N-[2-[(ethylamino)carbonyl]-6-methylphenyl]- (CA INDEX NAME)

RN 500007-73-8 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[(2-propyn-1-ylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500007-90-9 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[(2-propyn-1-ylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-(CA INDEX NAME)

RN 500008-79-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

3-chloro-N-[4-chloro-2-[(ethylamino)carbonyl]-6methylphenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-80-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-[(ethylamino)carbonyl]-6-methylphenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-84-4 CAPLUS
CN 1H-Pyrazole-5-carboxamide,
3-bromo-N-[4-chloro-2-[(ethylamino)carbonyl]-6 methylphenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500009-09-6 CAPLUS
CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-iodo- (CA
INDEX
NAME)

RN 500009-10-9 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-iodo-(CA INDEX NAME)

RN 500011-53-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-1-(5-bromo-3-chloro-2-pyridinyl)-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]- (CA INDEX NAME)

IT 500011-33-6 500011-35-8

RL: AGR (Agricultural use); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

(anthranilamide compds. as pesticides for plant propagation material)

RN 500011-33-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-fluoro-

(CA INDEX NAME)

RN 500011-35-8 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-fluoro- (CA INDEX NAME)

IT 362639-62-1P 438450-41-0P,

 $\label{lem:normalization} $$N-[4-Chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide$ 

500008-00-4P 500008-44-6P 500008-45-7P

500008-60-6P 500008-62-8P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of anthranilamide compds. as pesticides for plant propagation  $\ensuremath{\mathsf{P}}$ 

material)

RN 362639-62-1 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 438450-41-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-

[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-00-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-44-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-45-7 CAPLUS

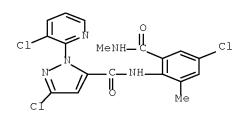
CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

500008-60-6 CAPLUS RN

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[[(1methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-62-8 CAPLUS

1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-CN [(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)



THERE ARE 32 CAPLUS RECORDS THAT CITE THIS OS.CITING REF COUNT: 32

RECORD (74 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 29 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2003:154155 CAPLUS Full-text DOCUMENT NUMBER: 138:200332

TITLE: Arthropodicidal anthranilamides

INVENTOR(S): Lahm, George Philip; Selby, Thomas Paul; Stevenson,

Thomas Martin

PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA

SOURCE: PCT Int. Appl., 82 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT		KIN	D DATE			APPLICATION NO.						DATE					
WO 2003015519				A1				WO 2002-US25615									
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OTHER SOURCE(S):	MARPA'	T 138:200332		

R1 O NH N R5

(0) NR4?R4?

GΙ

Anthranilamides I (Markush included), their N-oxides and agriculturally suitable salts are prepared as arthropodicides for controlling invertebrate pests. Arthropodicidal compns. containing anthranilamides I may further include addnl. biol. active compds. or agents selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones, γ-aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics, Bacillus thuringiensis sp. aizawai, B. thuringiensis sp. kurstaki, B. thuringiensis delta endotoxin, baculoviruses, and entomopathogenic bacteria, viruses and fungi.

IT 500008-79-7 500008-80-0 500008-84-4

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(arthropodicidal anthranilamide)

RN 500008-79-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

3-chloro-N-[4-chloro-2-[(ethylamino)carbonyl]-6methylphenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-80-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-[(ethylamino)carbonyl]-6-methylphenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-84-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

3-bromo-N-[4-chloro-2-[(ethylamino)carbonyl]-6-methylphenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

IT 438450-41-0P, N-[4-Chloro-2-methyl-6-

500008-44-6P 500008-45-7P 500008-60-6P

500008-62-8P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of arthropodicidal anthranilamide)

RN 438450-41-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-00-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-44-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-45-7 CAPLUS

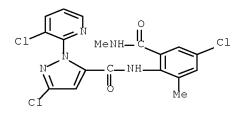
CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

500008-60-6 CAPLUS RN

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[[(1methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

500008-62-8 CAPLUS RN

1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-CN [(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)



THERE ARE 34 CAPLUS RECORDS THAT CITE THIS OS.CITING REF COUNT: 34

RECORD (48 CITINGS)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 30 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2003:154154 CAPLUS Full-text

DOCUMENT NUMBER: 138:200331

TITLE: Method for controlling particular insect pests by

applying anthranilamide compounds

INVENTOR(S): Lahm, George Philip; McCann, Stephen Frederick; Patel,

Kanu Maganbhai; Selby, Thomas Paul; Stevenson, Thomas

Martin

PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA

SOURCE: PCT Int. Appl., 150 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

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OTHER SOURCE(S):	MARPAT	138:200331	05 2000 1411/0	A	5 20000010

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AB Anthranilamide compds. I (Markush included), N-oxides or an agriculturally suitable salts thereof are prepared as insecticides for controlling lepidopteran, homopteran, hemipteran, thysanopteran and coleopteran insect pests. Insecticidal composition containing anthranilamide compds. I may further comprise addnl. biol. active compds. selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones, γ-aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics. 1053840-70-2 1064390-23-3 1064390-28-8 ΙT

1064395-78-3

RL: PRPH (Prophetic)

(Method for controlling particular insect pests by applying anthranilamide compounds)

1053840-70-2 CAPLUS RN

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[(propylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 1064390-23-3 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-1-(3,4-dichloro-2-pyridinyl)-N-[2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]- (CA INDEX NAME)

RN 1064390-28-8 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

1-(3,4-dichloro-2-pyridinyl)-N-[2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 1064395-78-3 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

3-bromo-1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[(2-propyn-1-ylamino)carbonyl]phenyl]- (CA INDEX NAME)

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     500011-53-0
     RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL
     (Biological study); USES (Uses)
        (anthranilamide compds. as insecticides)
     362639-48-3 CAPLUS
RN
     1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-
CN
     [(methylamino)carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)
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RN 362639-49-4 CAPLUS
CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2[(ethylamino)carbonyl]-6-methylphenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 362639-50-7 CAPLUS CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[(2-

propyn-1-ylamino)carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500006-11-1 CAPLUS
CN 1H-Pyrazole-5-carboxamide, 3-bromo-1-(3-chloro-2-pyridinyl)-N-[2[(ethylamino)carbonyl]-6-methylphenyl]- (CA INDEX NAME)

RN 500006-86-0 CAPLUS
CN 1H-Pyrazole-5-carboxamide,
1-(3-chloro-2-pyridinyl)-N-[3,6-dimethyl-2-[[(1-methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500007-53-4 CAPLUS
CN 1H-Pyrazole-5-carboxamide,
1-(3-chloro-2-pyridinyl)-N-[2,3-dimethyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500007-55-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2,3-dimethyl-6-[(methylamino)carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500007-70-5 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-1-(3-chloro-2-pyridinyl)-N-[2-[(ethylamino)carbonyl]-6-methylphenyl]- (CA INDEX NAME)

RN 500007-71-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

3-chloro-1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[(methylamino)carbonyl]phenyl]- (CA INDEX NAME)

RN 500007-73-8 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[(2-propyn-1-ylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500007-90-9 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[(2-propyn-1-ylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-(CA INDEX NAME)

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RN 500008-79-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

3-chloro-N-[4-chloro-2-[(ethylamino)carbonyl]-6methylphenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-80-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-[(ethylamino)carbonyl]-6-methylphenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-84-4 CAPLUS
CN 1H-Pyrazole-5-carboxamide,
3-bromo-N-[4-chloro-2-[(ethylamino)carbonyl]-6methylphenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500009-09-6 CAPLUS
CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-iodo- (CA
INDEX
NAME)

RN 500009-10-9 CAPLUS
CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-iodo- (CA INDEX NAME)

RN 500011-33-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-fluoro-

(CA INDEX NAME)

RN 500011-35-8 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-fluoro- (CA INDEX NAME)

RN 500011-53-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-1-(5-bromo-3-chloro-2-pyridinyl)-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]- (CA INDEX NAME)

IT 362639-62-1P 438450-41-0P,

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pyridinyl)-3-(trifluoromethyl)-1H-pyrazole-5-carboxamide

500008-00-4P 500008-44-6P 500008-45-7P

500008-60-6P 500008-62-8P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of anthranilamide compds. as insecticides)

RN 362639-62-1 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 438450-41-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)

RN 500008-00-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-

(trifluoromethyl) - (CA INDEX NAME)

RN 500008-44-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-45-7 CAPLUS

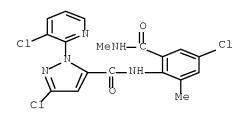
CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-60-6 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)

RN 500008-62-8 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-chloro-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 33 THERE ARE 33 CAPLUS RECORDS THAT CITE THIS

RECORD (69 CITINGS)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 31 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN

ACCESSION NUMBER: 2002:465981 CAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 137:47212

TITLE: Preparation of quinazolinones and pyridopyrimidinones

for controlling invertebrate pests

INVENTOR(S): Annis, Gary David; Myers, Brian James; Selby, Thomas

Paul; Stevenson, Thomas Martin; Zimmerman, William

Thomas

PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA

SOURCE: PCT Int. Appl., 180 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.				KIND DATE				APPLICATION NO.					DATE				
WO 2002048115					A2 A3	_	20020620							20011203 <			
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 137:47212
GI

$$\begin{bmatrix} \mathbb{R}^4 \end{bmatrix}_n \\ \mathbb{R}^3 \\ \mathbb{R}^3$$
 I

AB The title compds. [I; B = O, S; J = (un) substituted Ph, naphthyl, 5-6 membered heteroarom. ring, etc.; K, together with the two contiguous liking carbon atoms = a fused Ph, or fused pyridinyl, each optionally substituted with 1-4 R4; R3 = G, alkyl, cycloalkyl, etc.; G = (un) substituted Ph, 5-6 membered

heteroarom. ring, etc.; R4 = H, alkyl, haloalkyl, etc.; n = 1-4], useful for controlling invertebrate pests, were prepared E.g. a multi-step synthesis of II which provided very good level of plant protection (20% or less feeding damage) in in test on diamondback moth (Plutella xylostella)/radish plant, was given. This invention also pertains to certain compds. I and compns. for controlling invertebrate pests comprising a biol. effective amount of a compound I and at least one addnl. component selected from the group consisting of surfactants, solid diluents and liquid diluents. [This abstract record is one of 3 records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.]

IT 438450-41-0P, N-[4-Chloro-2-methyl-6-

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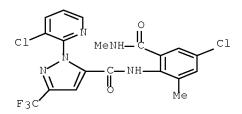
(trifluoromethyl)-1H-pyrazole-5-carboxamide

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of quinazolinones and pyridopyrimidinones for controlling invertebrate pests)

RN 438450-41-0 CAPLUS

CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

(3 CITINGS)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 32 OF 32 CAPLUS COPYRIGHT 2011 ACS on STN ACCESSION NUMBER: 2001:713292 CAPLUS Full-text

DOCUMENT NUMBER: 135:272754

TITLE: Preparation of insecticidal anthranilamides

INVENTOR(S): Lahm, George P.; Myers, Brian J.; Selby, Thomas P.;

Stevenson, Thomas M.

PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA

SOURCE: PCT Int. Appl., 211 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT OTHER SOURCE(S): MARPAT 135:272754

GΙ

The title compds. [I; A, B = O, S; J = substituted Ph, naphthyl, (un)substituted 5-6 membered heteroarom., aromatic 8-10 membered fused heterobicyclic ring; n = 1-4; R1 = H, alkyl, alkenyl, etc.; R2 = H, alkyl, alkoxy, etc.; R3 = H, alkyl, cycloalkyl, etc.; R4 = H, alkyl, halo, etc.], useful for controlling arthropods, were prepared E.g., a multi-step synthesis of II which showed excellent level of plant protection (10% or less feeding damage) in test with diamondback moth (DBM), was given.

IT 500005-94-7 500006-11-1 500006-21-3 500007-36-3 1064390-23-3 1064395-78-3

RL: PRPH (Prophetic)

(Preparation of insecticidal anthranilamides)

RN 500005-94-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide,

3-bromo-1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-

[[(1-methylethyl)amino]carbonyl]phenyl]- (CA INDEX NAME)

RN 500006-11-1 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 3-bromo-1-(3-chloro-2-pyridinyl)-N-[2-[(ethylamino)carbonyl]-6-methylphenyl]- (CA INDEX NAME)

RN 1064390-23-3 CAPLUS
CN 1H-Pyrazole-5-carboxamide, 3-bromo-1-(3,4-dichloro-2-pyridinyl)-N-[2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]- (CA INDEX NAME)

RN 1064395-78-3 CAPLUS
CN 1H-Pyrazole-5-carboxamide,
3-bromo-1-(3-chloro-2-pyridinyl)-N-[2-methyl-6[(2-propyn-1-ylamino)carbonyl]phenyl]- (CA INDEX NAME)

IT 362639-48-3P 362639-49-4P 362639-50-7P 362639-62-1P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of insecticidal anthranilamides)

RN 362639-48-3 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[(methylamino)carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 362639-49-4 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2- [(ethylamino)carbonyl]-6-methylphenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 362639-50-7 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[(2-propyn-1-ylamino)carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 362639-62-1 CAPLUS

CN 1H-Pyrazole-5-carboxamide, 1-(3-chloro-2-pyridinyl)-N-[2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-3-(trifluoromethyl)- (CA INDEX NAME)

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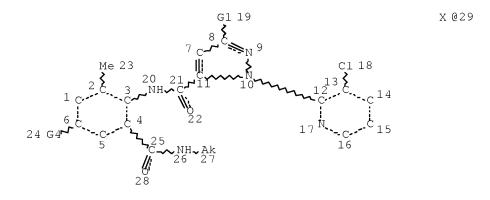
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